Veterinary Medicine Students Take Injured Raptorex UNDER THEIR WING

Story by KAREN WORLEY
Photos by JEFF ADAMS
A flock of veterinary medicine students rehabilitate injured hawks, owls and eagles. "The excitement of taking in a wild bird, treating it and releasing it is why most people join the group," says Joe Harre, a third-year student from St. Louis. Harre is president of the University of Missouri Veterinary Raptor Rehabilitation and Propagation Project, which has run on volunteer labor and materials since 1972.

Raptors include hawks, falcons, owls and eagles, all of which are illegal to possess without a permit. A large raptor, such as the golden eagle, has a wing span of 5 1/2 feet and can weigh up to 12 pounds. A small one, such as a screech owl, is only inches tall and weighs less than a pound.

About 35 of the college's 280 students are involved in the project, stretching their education beyond the usual clientele of dogs, cats, horses and cows. Harre enjoys telling the story of Joe, a young golden eagle, who was found Dec. 29 near Kirksville, Mo. He had been shot; radiographs showed seven pellets scattered throughout his body, but no broken bones. Veterinarians and students decided not to remove the pellets because they weren't life threatening and wouldn't cause Joe problems later. "It would have done more harm trying to get them out," Harre says.

After students had helped him regain his strength through diet and exercise, the bird was released by the Chariton River near Kirksville. Television, radio and newspaper reporters covered the successful rehabilitation.

"At the start Joe couldn't get six inches off the ground," Harre says. A few weeks later, tethered with thin leather straps that slide up and down his legs, the golden eagle was "flying the whole length of the field, about 450 to 500 yards. We had to pull him down to get him to stop."

Gunfire or automobile collisions cause the most frequent injuries to raptors. When an injured bird is brought in, a clinician decides the course of surgical or medical treatment. That might include blood tests, shock therapy, tube feeding or surgery. To treat or to euthanize depends on the severity of the injury. Broken legs and wings can be fixed, but some joint injuries in wings render birds unable to function in the wild. Likewise, an owl with an eye injury may not be able to find food.
Deanna Hollenberg, a senior majoring in fisheries and wildlife, works with a hawk in the flight cage. Severely injured birds need surgery. Cathy Wagner, left, a third-year veterinary student, and Dr. Julie Smith doing surgery on a barred owl.

For the treatable ones, students manage their rehabilitation at the project's compound just east of the College of Veterinary Medicine on Rollins Road. Working from one to 15 hours a week, they keep extensive records of treatment, feeding and progress until the bird is released.

Most of the birds are common raptors, and the number rehabilitated doesn't affect wild populations. Since 1972, more than 1,000 raptors have been treated at the college; 500 to 600 have been released.

"By working with common raptors, we have the experience to handle endangered birds correctly," says Lance Blackburn, past president of the raptor group and a third-year student from Springfield, Mo. When people discover injured raptors, most often they take them to a local veterinarian or conservation agent.

On the Missouri Department of Conservation's endangered raptor list are the bald eagle, northern harrier, red-shouldered hawk, sharp-shinned hawk, Cooper's hawk, peregrine falcon, barn owl and osprey, a large hawk. Since 1977, one-eighth of 1...
percent of Missouri's sales tax has gone to conservation programs, including protecting endangered species.

The steps from rare to endangered to extinct are ones that Ken West, BS FW '81, conservation agent for Boone County, takes seriously. "A loss of a species could be considered one in a chain of losses."

Loss of habitat and insecticides lead the list of reasons birds become extinct. In the early 1970s, the insecticide DDT reduced the population of bald eagles. Rainwater washed the poison into rivers and streams where it was absorbed by fish. Raptors that ate the fish picked up the poison, which in turn affected the amount of calcium in females' eggs. The thin-shelled eggs cracked, resulting in few eaglets being hatched.

The only predator of hawks and eagles is man. DDT proved hawks and eagles are "an indicator of environmental quality," West says.

In 1972, the Missouri Department of Conservation counted 300 bald eagles in the state. After DDT was banned that year, eagles made a comeback. The mid-winter 1988 bird count spotted 966 bald eagles in Missouri, which is the No. 1 mid-winter bald eagle state in the continental United States.

The federal Bald Eagle Act also protects the birds. Anyone convicted of killing a bald eagle or golden eagle faces a minimum $5,000 fine or a year in jail. Even the feathers are protected. With molted feathers from the project's four eagles, "We turn them over to federal agents who give them to American Indians for ceremonial headdresses," Harre says.

To manage the birds during rehabilitation, students modify techniques used by falconers centuries ago. Most people are afraid of the birds' strong hooked beaks, Blackburn says, but it's the feet that are dangerous. "If you control the feet's sharp talons, you protect yourself while working with them."

An important part of rehabilitation is exercise. "In the past we were limited as far as getting the birds back into shape," he says. Students would take birds out for daily one-hour flights, keeping them tethered so they wouldn't fly away. Food was the motivating factor. "They would fly to a mouse taped to a board. After they reached a certain sense of fullness, they'd stop."

An L-shaped flight cage, built with a $5,000 gift from alumni [see sidebar], changes exercise dramatically. With tree limbs and rope, students built perches inside the cage. "In the flight cage, when raptors drop down to bathe, they have to pump hard to get back to a perch," Blackburn says. "There's more movement in a day's time than you could possibly produce otherwise. It hastens their recovery."

In 1987, of 38 raptors treated, seven were released. "They're not released unless they can make it in the wild," says Dr. Jim Creed, BS Agr '54, DVM '61, chairman of veterinary medicine and surgery, and faculty adviser of the raptor project.

To ease the transition from the compound to the wild, students take food to the release site for several days, providing the bird with a few meals.

Some birds are permanent residents. "We keep enough crippled birds on hand to provide people experience with handling," Blackburn says. The five red-tailed hawks, two great horned owls, two barred owls, one kestrel and four golden eagles provide the maximum in education but aren't a large collection.

With the golden eagles, students are trying artificial insemination. The male eagles, both single-wing amputees, lack balance, which is necessary for natural reproduction. In the next year, students hope to perfect techniques for collecting semen samples from a male eagle and inseminating a female.

From February to March, golden eagles exhibit courtship behavior by being more territorial and aggressive, extending feathers and wings away from their bodies and squawking a warning to stay away. If the students are successful with their reproduction plans, the eaglets will be released to the wild.

Future plans also call for fitting released birds with transmitters so that students can track the birds' progress and improve their rehabilitation methods. In addition, students visit schools and organizations to talk about birds of prey. Says Blackburn, "It's a chance to speak for the raptors."

The conservation department's West thinks highly of MU's raptor rehabilitation project. "The college sends out people who are qualified to deal with raptors."

Private support grows for veterinary medicine

It's one big bird cage. The L-shaped flight cage measures 12 feet high and 16 feet wide, with long corridors that measure 50 feet and 110 feet. In the cage, raptors recuperate faster with increased exercise.

The $5,000 building was donated by Thomas Scott, BS BA '58, and Betty Rose Cerny Scott, Nur '58, of Kansas City. He is president of Insurance Management Corp., and she is the administrative manager for Thomas, Knootz, Pinkerton, Helling, a group of surgeons.

The Scotts became acquainted with the College of Veterinary Medicine 20 years ago. Smiley, their basset hound, and Muffin, a poodle, were patients at the Veterinary Teaching Hospital. The Scotts are members of the Jefferson Club, Mizzou's highest-level gift club. Members supporting the College of Veterinary Medicine have increased 42 percent in the past year, from 33 in January 1987 to 47 in March 1988.

"The vet college is important to the agricultural economy," Thomas Scott says. "We know the money we give is going to accomplish something."

And that it does. During the 1985-86 fiscal year, 965 gifts contributed $405,095 to the college. During fiscal 1986-87, 1144 gifts brought in $460,194, an increase of $55,099.

Increased funding is a necessity. The college, placed on limited accreditation in 1984, must correct a list of deficits if it is going to be fully reaccredited in 1989. "If the college is not accredited, the graduates cannot practice," says Ben Riley, BS BA '65, assistant to the dean.

"There are only two choices to make next year," Riley says, "either terminal or full."

To achieve full accreditation, the American Veterinary Medical Association Council on Education says the University must increase its funding of the college, upgrade facilities and acquire major equipment, and make faculty salaries competitive.

The state legislature appropriated an additional $850,000 to the college's base budget in fiscal 1988 and 1989. Pending the governor's signature is $3 million for initial construction of the $16 million veterinary medicine addition.

A capital campaign will raise 20 percent of building costs from private sources. Parents of veterinary medicine students have pledged $250,000. On June 4, August and Virginia Busch III were hosts of a $100-a-plate dinner in St. Louis. The Scotts will do likewise in Kansas City later this year.

"We're making progress," says Dean Robert Kahrs. "We feel more optimistic than we did a year ago." — Karen Worley